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STATEMENT OF WORK (SOW) for the RESTORATION, OVERHAUL, AND REPAIR (ROR) of the AN/TPS-59(V)3 RADAR SET NSN 5840-01-412-9653

SOW-04-C4I-07751B-1/1

1. This SOW identifies the work effort that shall be performed by the contractor in the ROR of the AN/TPS-59(V)3 Radar Set, NSN 5840-01-412-9653, part number 77A109234G2, CAGE 03538.

2. The attached manuscript has been revised, reviewed, and is concurred upon by the following signers:

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1.0 <u>Scope</u>. This SOW establishes general and specific requirements to be followed by the contractor in the Restoration, Overhaul and Repair (ROR) of the AN/TPS-59(V)3 Radar Set, NSN 5840-01-412-9653, part number 77A109234G2, CAGE 03538, less the following major assemblies: Equipment Transport Shelter, S-675/TPS59, Data Processor Control Group, OL-576/TPS-59, and the Power Distribution Box, SB-4171/TPS59. In order to ensure that a complete understanding of all requirements, this SOW and the individual SOWs referenced in section 2 should be reviewed in their entirety. The individual SOWs referenced in section 2 apply to each of the major assemblies which comprise the AN/TPS-59(V)3 Radar Set.

1.1 Definitions

<u>Contractor</u>: For the purposes of this SOW, contractor is defined as a commercial or Government entity.

Condition Code "A": Serviceable and issuable without qualification, limitation or restriction.

Restoration: The process of upgrading an item to conform to the applicable technical specifications in order to assure compliance with specified operational capabilities, physical appearance and configuration. It includes the repair or replacement of parts/components that have failed or are of marginal quality/reliability due to wear, deterioration, or damage as well as cosmetic reconditioning. Restoration shall include all applicable alignments/calibrations and verification that approved Engineering Change Proposals/Modifications have been installed properly and are functional. In the event that non-approved configuration items are discovered, the equipment shall be returned to its current approved configuration.

Overhaul: The process of totally reconditioning an item to conform to all current technical specifications for that item, thereby providing a life expectancy equivalent to similarly configured new equipment, through the repair/replacement of components that have failed, are of marginal performance, or are reasonably expected to fail due to wear/damage/ deterioration. Additionally, structural/cosmetic repairs shall be performed to the degree that the item is comparable to new equipment. For the purposes of this SOW, all approved Engineering Change Proposals (ECPs) and modifications shall be installed/verified as part of the overhaul work effort.

Repair: The process of returning an unserviceable item to full operational status by repair/replacement of its component parts and performing any alignments/calibrations as may be

necessary. Cosmetic/structural repairs are not included in the repair process unless those repairs impede the operational functionality of the item.

Marginal Quality: Deteriorated or damaged parts that are reasonably anticipated to fail thereby significantly reducing the expected reliability of an assembly/equipment. An expanded definition and associated requirements for replacement of parts/components adjudged to be of marginal quality is contained in MIL-STD-2110 (EC). Specific requirements of this SOW along with the general requirements as contained in MIL-STD-2110 (EC) shall be used to identify and necessitate the replacement of marginal quality items.

2.0 Applicable Documents

The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and Supplements thereto which are in effect on the date of solicitation. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirement. Any remaining conflicts shall be resolved at the discretion of the Logistics Management Specialist (LMS), e-mail address: herndonle@matcom.usmc.mil. Mailing address: Commander, Marine Corps Systems Command, Attn: Logistics Management Specialist, Code BMADS, 814 Radford Blvd., Suite 20343, Albany, GA 31704-0343. Commercial telephone: (229) 639-6578, DSN: 567-6578. Facsimiles may be sent to (229) 639-6545 or DSN 567-6545, Attn: Logistics Management Specialist, Code BMADS.

2.1 <u>Military Specifications</u>

MIL-A-8625 Anodic Coatings for Aluminum and Aluminum Alloys

MIL-C-5541 Chemical Conversion Coatings on Aluminum and

Aluminum Alloys

MIL-R-29466C System Specifications for the AN/TPS-59(V)3

2.2 <u>Military Standards</u>

MIL-STD-129 DoD Standard Practice for Military Marking

MIL-STD-2073-ID DoD Standard Practice for Military Packaging

MIL-STD-2110 (EC) Restoration, Overhaul, and Repair of Electronic Equipment

2.3 Other Government Documents and Publications

SOW-04-C4I-8C778B-1/1 Statement of Work for ROR of the Antenna-Transmitter

Group, OE-340/TPS-59

SOW-04-C4I-09088A-1/1 Statement of Work for ROR of the SET-15 Antenna-

Transmitter Group, OE-442/TPS-59

SL3-07751B Components List, Radar Set AN/TPS-59(V)3

TI-4400-15/1A Packaging, Handling, Storage and Transportation of

Electrostatic Discharge Sensitive Items

TM-07751B-14/1 Operation and Maintenance Instructions, Radar Set

AN/TPS-59(V)3

TM-07751B-14/9 Software Functional Description, Radar Set

AN/TPS-59(V)3

TM-4750-15/1 Painting and Registration Marking of Marine Corps

Combat and Tactical Equipment

TM-4750-15/2-8 Painting and Registration Marking of Marine Corps

Combat and Tactical Equipment (contains patterns)

Engineering Drawing

77A109234, Cage 03538 (Assembly level) Radar Set AN/TPS-59(V)3

Engineering Drawing

77A109234G2, Cage 03538 Parts List, Radar Set AN/TPS-59(V)3

Military Handbooks (For Guidance)

MIL-HDBK-61 Configuration Management Guidance

2.4 <u>Industry Standards</u>

JESD625-A Requirements for Handling Electrostatic-Discharge-

Sensitive (ESDS) Devices

ANSI/ISO/ASQC Quality Systems - Model for Quality Assurance in

Q9002-1994 Production, Installation and Servicing

Industry Standards (For Guidance)

ANSI/EIA-649 National Consensus Standard for Configuration

Management

Copies of Military Standards and Specifications are available from the DOD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, commercial telephone number (215) 697- 2179 or DSN 442-2179,

or http://www.dodssp.daps.mil. Copies of other government publications required by contractors in connection with specific SOW requirements shall be obtained through the Contracting Officer: Contracts Department (Code 891), P.O. Drawer 43019, 814 Radford Blvd., Marine Corps Logistics Bases, Albany, GA 31704-3019, commercial telephone number (229) 639-6761 or DSN 567-6761. Copies of engineering drawings, if applicable, shall be obtained from: Supply Chain Management Center, Attn: Code 583-1, 814 Radford Blvd. Suite 20320, Albany, GA 31704-0320, commercial telephone number (229) 639-6410 or DSN 567-6410.

3.0 Requirements

3.1 General Requirements

- 3.1.1 This SOW establishes uniform standards and procedures as applicable to the entire ROR process (to include, an initial evaluation of the equipment's condition, maintenance procedures, selection and use of parts/materials, identification/marking of the equipment, and preservation/packing for shipment). Although this SOW, along with the referenced documents, provide extensive information relative to the ROR, the information and guidance is limited to establishing only the minimum requirements essential to perform the ROR process to restore the Radar Set to Condition Code "A". Additional guidance may be provided by the LMS, as well as other approved commercial/ industry practices and standards.
- 3.1.2 The contractor shall be responsible for all parts, materials, labor, facilities, tools, and test equipment (with the exception of the Radar Environmental Simulator (RES) referenced in paragraph 3.2.5) necessary to restore, overhaul, and/or repair the equipment in accordance with the references and this SOW.
- 3.1.3 Upon completion of the ROR, the contractor shall be responsible for informing the LMS that the AN/TPS-59(V)3 Radar Set ROR has been completed and also for coordinating shipment of the Radar Set (less those items previously excepted in the SOW Scope) to the receiving unit.
- 3.1.4 The contractor shall budget for the required temporary additional duty (TAD) funding as part of the ROR process and provide technical service personnel (actual number to be determined by the contractor) to the receiving unit to perform joint acceptance testing.

3.2 Detailed Tasks

3.2.1 Pre-Induction LTI: Upon receipt of the Radar Set, contractor technical personnel shall perform a Pre-Induction Limited Technical Inspection (LTI) on the Radar Set scheduled for ROR utilizing SL3-07751B and TM-07751B-14/1 for inventory and determination of operational status of the equipment. The LTI shall identify any shortages, long lead-time material requirements, initial Space Probe Antenna Characterization System (SPACS) testing results, and the overall condition of the Radar Set to be inducted for ROR. The LMS shall be informed of any equipment shortages in order to coordinate resolution actions. Identification of required long lead-time materials and the overall condition are envisioned to assist ROR management personnel in the reduction of overall ROR processing time. Furthermore, the LTI shall include identification of any transportation related damages incurred in-transit. In the event of any

transportation related damage(s), the cognizant Transportation Management Office shall be notified, in writing, within five working days.

- 3.2.2 Induction for ROR: Work shall commence within five days of receipt of the Radar Set at the contractor's repair facility. TM-07751B-14/1, TM-07751B-14/9, Engineering Drawing 77A109234 Cage 03538, Parts List 77A109234G2 Cage 03538, and MIL-R-29466C (in particular) should be referenced for informational purposes and to ensure compliance with established mandatory requirements. Additionally, each of the SOWs for the Radar Set's major assemblies, (SOW-04-C4I-8C778B-1/1 and SOW-04-C4I-09088A-1/1), should be referenced to ensure compliance with mandatory requirements as applicable to those assemblies.
- 3.2.3 Aluminum and aluminum alloy hardware shall be treated, as required, in accordance with MIL-A-8625 or MIL-C-5441 (as applicable) to provide protection from corrosion/oxidation.
- 3.2.4 Unless otherwise specified by the LMS (prior to induction for ROR), the Radar Set shall be painted with Chemical Agent Resistant Coating (CARC) utilizing the applicable green camouflage patterns in accordance with TM-4750-15/1 and TM-4750-15/2-8.
- 3.2.5 Following ROR of the Radar Set, the contractor shall conduct a full system operational test, to include testing of Tactical Ballistic Missile tracking functionality utilizing the Radar Environmental Simulator (RES) and final SPACS test. The (contractor format) Acceptance Test/LTI form(s) shall be used for documentation and quality assurance support.
- 3.3 Packaging, Handling, Storage, and Transportation (PHS&T)
- 3.3.1 The contractor shall be responsible for preservation and packaging of the items being repaired under the terms of this Statement of Work. Shipment of all items shall be in accordance with the level "B" requirements of MIL-STD-2073-1D, Appendix A, Table A.VI., Electronic Equipment.

NOTE: Any overseas shipments must be made via priority Military Airlift Command (MAC) and will be for immediate use. No level "A" requirements exist.

- 3.3.2 Marking for shipment and storage shall be in accordance with MIL-STD-129.
- 3.3.3 The Marine Corps will provide the contractor with the shipping address(es) for delivery of the Radar Set(s). The contractor shall be responsible for arranging for shipment, via air-ride truck for CONUS, or priority air shipment via Military Airlift Command for OCONUS to the pre-designated site(s). The Marine Corps will be responsible for transportation costs associated with movement of the equipment to and from the contractor.
- 3.4 <u>Joint Acceptance Testing</u>. The contractor shall coordinate equipment receipt, emplacement, assembly, and joint acceptance testing with the receiving unit. Joint acceptance testing shall include a joint Limited Technical Inspection (inclusive of inventorying for possible shortages) and complete operational testing (inclusive of full system integration testing utilizing the RES and unit's AN/TYQ-23(V), Tactical Air Operations Module).

- 3.5 <u>Configuration Management</u>. The contractor shall apply configuration control procedures to established configuration items. The contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization. All permanent changes to the form, fit or function of the baseline shall be by Engineering Change Proposal. If it is necessary to temporarily depart from the authorized configuration, the contractor shall prepare and submit a Request for Deviation. MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing these configuration control documents.
- 3.6 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA/Code 573-2) will coordinate Government Furnished Equipment/Government Furnished Materiel (GFE)/(GFM) requests and maintain a central control system on all government owned assets in the contractor's possession. The MCA will forward a GFE Accountability Agreement to the contractor for signature on an annual basis to establish a chain of custody and identify property responsibilities for Marine Corps assets. The contractor is to acknowledge receipt of GFM to the MCA within 15 days of receipt. (This can be done by mailing (Materiel Management Department, Management Control Activity (Code 573-2), 814 Radford Blvd., STE 20320, Albany, GA 31704-0320) or faxing (commercial 229-639-5498 or DSN 567-5498) a copy of the DD1348).

3.7 Electrostatic Discharge (ESD) Control Program

- 3.7.1 The contractor shall establish, implement, and document an ESD control program following the guidelines provided in JESD625-A. ESD protective measures shall be used during manufacturing, handling, inspection, testing, marking, packaging, storing and transporting ESD sensitive components.
- 3.7.2 The contractor shall plan for and use proper Electromagnetic Environmental Effects (E3) control procedures in the ROR process in conjunction with TI-4400-15/1A and JESD625-A.
- 3.8 Quality Assurance Provisions. The contractor shall provide and maintain a Quality System that, as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9002-1994, Quality Systems Model for Quality Assurance in Production, Installation and Servicing.
- 4.0 Reports. The contractor shall provide the following reports as stated in the paragraphs below. Reports shall be submitted to the Logistics Management Specialist (LMS). Electronic address: herndonle@matcom.usmc.mil. Mailing address: Commander, Marine Corps Systems Command, Attn: Logistics Management Specialist, Code BMADS, 814 Radford Blvd., Suite 20343, Albany, GA 31704-0343. Facsimiles may be sent to (229) 639-6545 or DSN 567-6545, Attn: Logistics Management Specialist, Code BMADS.
- 4.1 The contractor shall develop a Test Data Report (TDR) in contractor format that portrays all test requirements/specifications (as collectively contained in the engineering drawings and technical manuals relative to the Radar Set, referencing acceptable parameters, specific results obtained during the final diagnostic/integration testing, and general remarks. Additionally, the TDR shall reference this SOW, the NSN, part number, and serial number of the Radar Set. Upon

request, the contractor shall submit a copy of the TDR electronically (preferred), via regular mail, or facsimile to the Logistics Management Specialist (LMS).

- 4.2 The contractor shall provide a copy (either electronic or hard copy submittal is acceptable) of the Pre-Induction LTI to the LMS within 15 calendar days after completion of the inspection. The LTI (contractor format) shall consist of the TDR and extract of SL3-07751B (as applicable to Supply System Responsibility items of the Radar Set).
- 4.3 The contractor shall provide a hard copy (with the signature of the unit's Commanding Officer or his designated representative) of the Joint Acceptance LTI to the LMS within 15 calendar days after completion of the inspection. The Joint Acceptance LTI shall be similar to the Pre-Induction LTI, with additional provisions for the signature and identifying information of the unit's authorized acceptance representative. The unit will retain a copy of the Joint Acceptance LTI (with original signatures) in its files for the Radar Set. Electronic copies of this report are not acceptable.

CONTRACT DATA REQUIREMENTS LIST

Form Approved

Page 1 of 1 Pages
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17. PRICE GROUP

18. ESTIMATED

TOTAL PRICE

(1 Data Item) OMB No. 1704-0188 The Public reporting burden for this collection of information is authorized to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports 1215 Lefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302 and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government issuing Contract Offices for the contract/PR. No. Usted Dock E. C. CATEGORY: A. CONTRACT LINE ITEM NO. B. EXHIBIT Other XXX E. CONTRACT/PR No. F. CONTRACTOR D. SYSTEM/ITEM AN/TPS-59(V)3 Radar Set 1. DATA ITEM No. 2. TITLE OF DATA ITEM 3 SUBTITLE CONFIGURATION MANAGEMENT **ENGINEERING CHANGE PROPOSAL (ECP)** A001 6 REQUIRING OFFICE 5. CONTRACT REFERENCE 4. AUTHORITY (Data Acquisition Document No.) **MARCORLOGBASES 583-1 DI-CMAN-80639C** SOW Para. 3.5 12. DATE OF FIRST SUBMISSION DISTRIBUTION 10. FREQUENCY 7. DD 250 REQ. DIST STATEMENT REQUIRED b. COPIES AS REQ **SEE BLOCK 16** LT 13. DATE OF SUBSEQUENT 8. APP CODE 11. AS OF DATE a ADDRESSEE Draft Reg Ä MCLBA 583-1 0 Block 4: Contractor Format using .doc or .pdf software application is authorized. Block 10 & 12; ECPs shall be submitted for all proposed changes which permanently affect the baseline of a configuration item. ECPs will be reviewed and disposition determined within 20 working days upon receipt by the government. ECPs shall be transmitted via e-mail to the following address: mbmatcomconfigmngmnt@matcom.usmc.mil. Distribution Statement A: Approved for public release, distribution is unlimited. 15. TOTAL G. PREPARED BY: I. APPROVED BY: J. DATE H. DATE

PREVIOUS EDITION MAY BE USED

CONTRACT DATA REQUIREMENTS LIST Form Approved (1 Data Item) OMB No. 1704-0188 The Public reporting burden for this collection of information is authorized to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and naintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including processions for reducing this burden, to Department of Deterse, Washington Headquarters Services, Directorate for Information Operations and Reports 1215 Jefferson Davis Highway, Suite 1204, Arington, VA 22202-4302 and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government issuing Contract Officer for the contract/PR No. listed in block E. A. CONTRACT LINE ITEM NO. B. EXHIBIT C. CATEGORY: Other XXX D. SYSTEM/ITEM Enhanced Memory E. CONTRACT/PR No. F. CONTRACTOR AN/TPS-59(V)3 Radar Set 2. TITLE OF DATA ITEM SUBTITLE CONFIGURATION MANAGEMENT REQUEST FOR DEVIATION (RFD) A002 CONTRACT REFERENCE REQUIRING OFFICE 4. AUTHORITY (Data Acquisition Document No.) MARCORLOGBASES 583-1 DI-CMAN-80640C Para 3.5 DISTRIBUTION DIST STATEMENT 2. DATE OF FIRST SUBMISSION 7. DD 250 REQ. REQUIRED AS REQ **SEE BLOCK 16** 6. COPIES LT II. AS OF DATE DATE OF SUBSEQUENT FINAL 8. APP CODE a. ADDRESSEE A Draft SUBMISSION A MCLBA 583-1 T Block 4: Contractor Format using .doc or .pdf software applications is authorized. Block 10 & 12: RFDs shall be submitted to obtain authorization to deliver nonconforming material which does not meet the prescribed configuration documentation. RFDs will be reviewed and disposition determined within 20 working days upon receipt by the government. RFDs shall be transmitted via e-mail to the following address: mbmatcomconfigmngmnt@matcom.usmc.mil. Distribution Statement A: Approved for public release, distribution is unlimited.

G. PREPARED B

15. TOTAL

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17. PRICE GROUP

18. ESTIMATED

TOTAL PRICE